

Civil Report Card On GPS Performance

July 2011

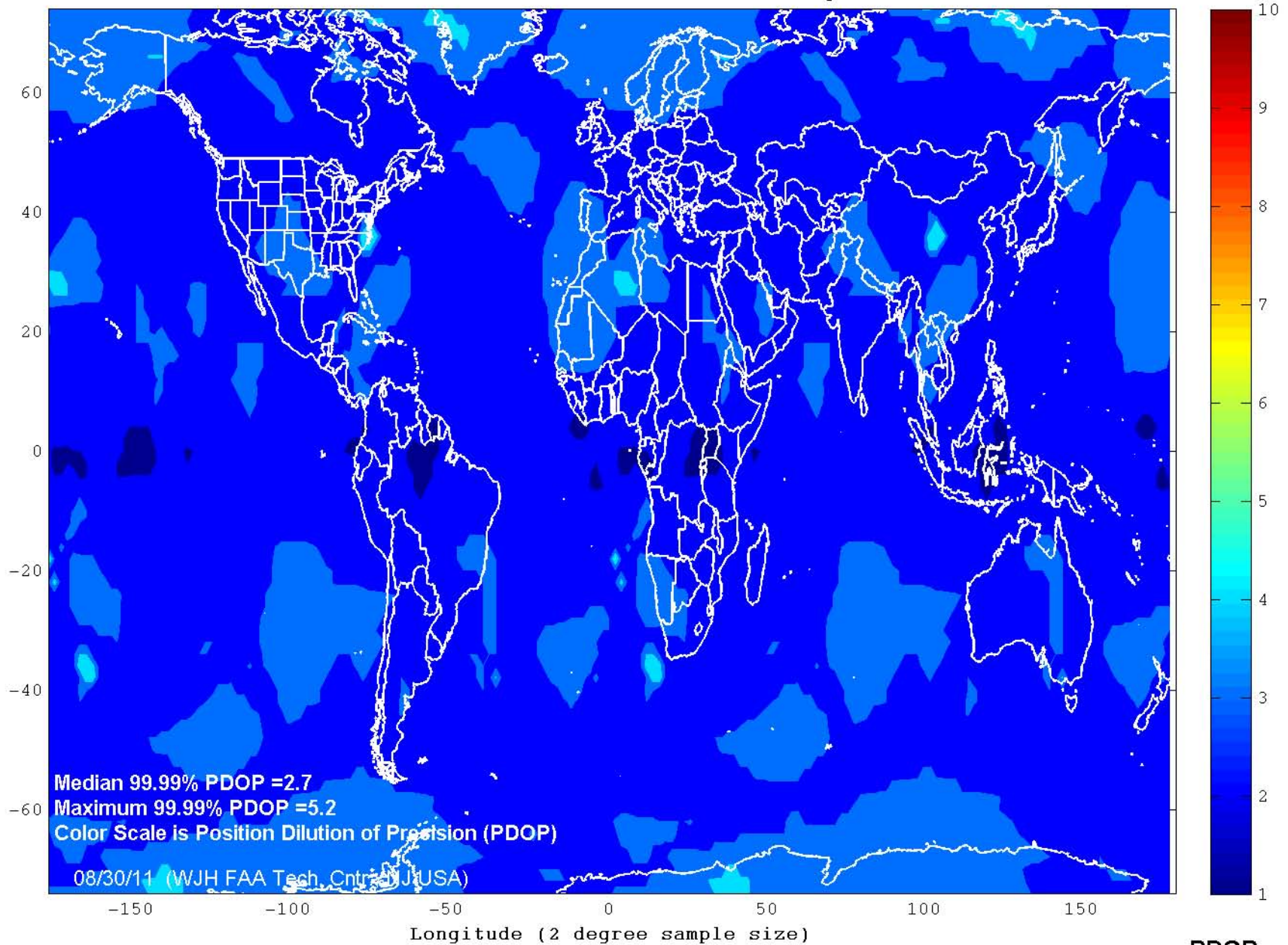
Operational Performance Parameter	CY 2010	June 2011	July 2011	Long term	Short term
Availability Parameters					
<i>Average Number of satellites usable</i>	30.90	30.00	30.00	↓	→
<i>Average number of satellites usable in primary slots</i>	23.92 (99.68%)	23.00 (95.83%)	23.00 (95.83%)	↓	→
<i>Average availability of 6 satellites in view</i>	99.99%	100%	100%	↑	→
99.99% Horizontal DOP					
<i>Area Median</i>	1.7	1.4	1.4	↑	→
<i>Worst Site</i>	7.9	2.2	2.2	↑	→
99.99% Vertical DOP					
<i>Area Median</i>	3.1	2.4	2.4	↑	→
<i>Worst Site</i>	18.1	5.0	5.1	↑	↓
99.99% Position DOP (PDOP)					
<i>Area Median</i>	3.4	2.7	2.7	↑	→
<i>Worst Site</i>	19.1	5.1	5.2	↑	↓
Accuracy Parameters					
RMS Single Frequency User Range Error					
<i>Constellation Median</i>	1.63	1.53	1.47	↑	↑
<i>Worst Satellite</i>	2.11	1.97	1.93	↑	↑
95% Horizontal Error					
<i>Area Median</i>	2.23	2.34	2.07	↑	↑
<i>Worst Site</i>	4.51	3.67	3.26	↑	↑
<i>Availability (% <4.5m (historical 3-sigma))</i>	99.71%	99.91%	99.95%	↑	↑
95% Vertical Error					
<i>Area Median</i>	3.93	3.70	3.54	↑	↑
<i>Worst Site</i>	5.35	4.87	5.04	↑	
<i>Availability (% < 9m (historical 3-sigma))</i>	99.96%	99.98%	99.99%	↑	↑

Key: ↑ improving ↓ worsening → no significant change

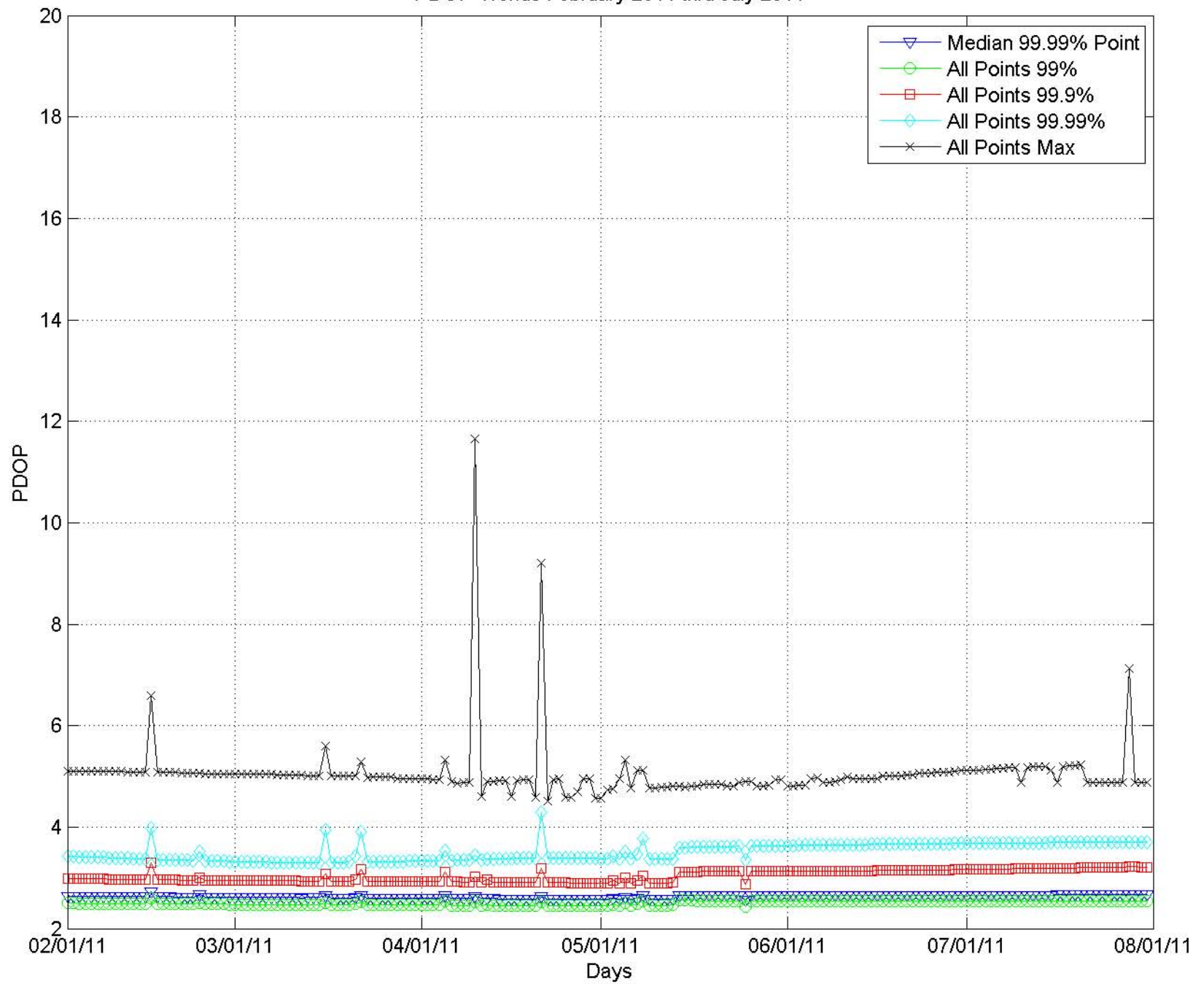
Long Term is current month vs. prior 24 months; Short Term is current month vs. prior month

Compiled from WAAS network as requested by the Defense Science Board

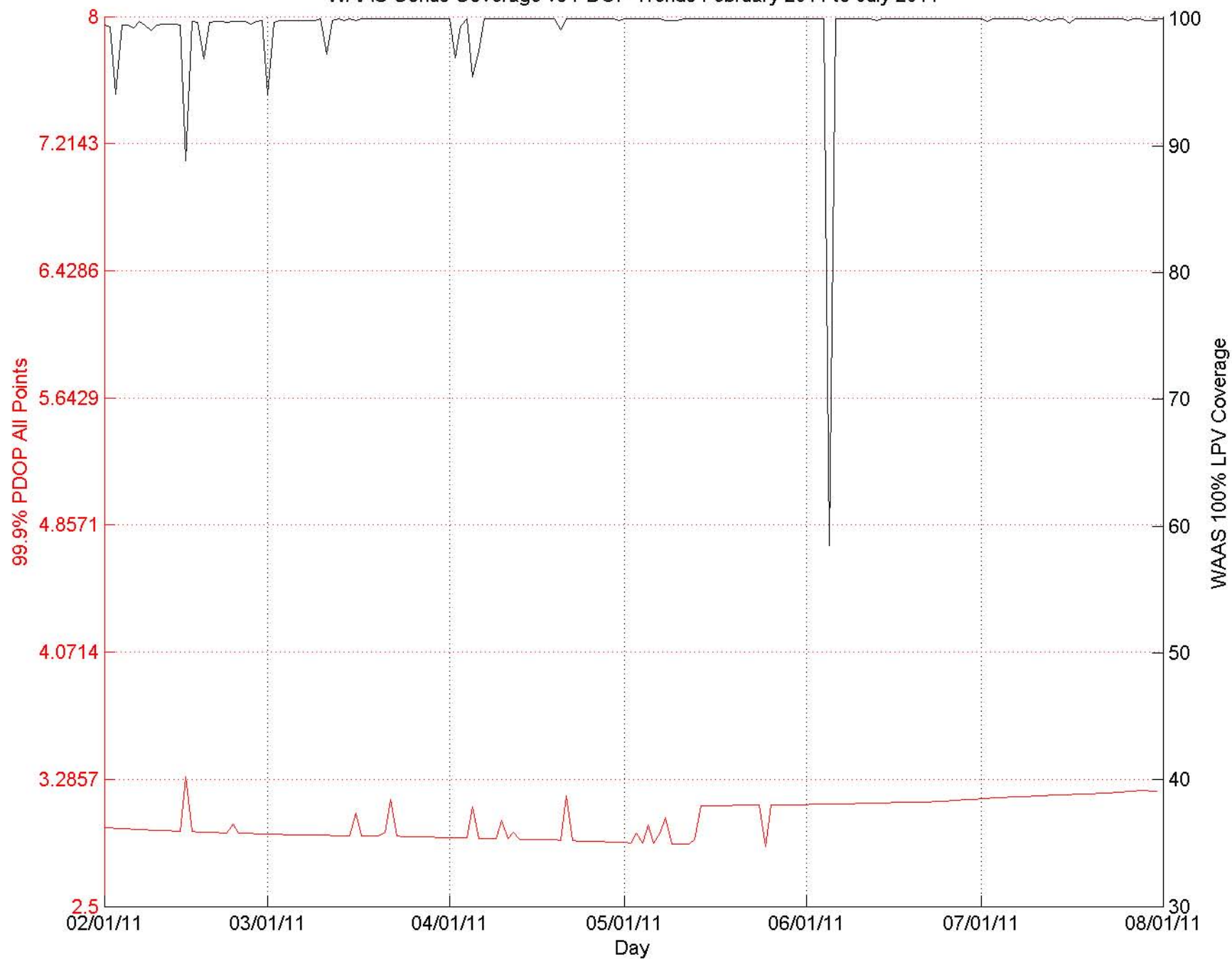
GPS World PDOP 99.99% Index July 2011



PDOP Trends February 2011 thru July 2011



WAAS Conus Coverage vs PDOP Trends February 2011 to July 2011



Six Satellite Availability Trends February 2011 thru July 2011

